

VANTAA POLYTECHNIC CASE STUDY FINLAND

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1. THE NON-UNIVERSITY SECTOR OF THE FINNISH HIGHER EDUCATION SYSTEM

Finland's contribution to the OECD/IMHE project on "Quality Management, Quality Assessment and the Decision-Making Process" includes the case studies of three universities and one polytechnic. The case studies are tied together by a common introduction explaining about the current trends in Finnish higher education policy including the relationship between polytechnics and universities. The common introduction is attached as an appendix to the case study on the University of Helsinki.

The present report will focus on the case of Vantaa Polytechnic, giving an example of a new higher education institution in the vocational non-university sector.

1.1. The creation of a binary system

As part of its national strategy for success in the world market, Finland is implementing an educational reform which in the future is aimed at giving university level education of high quality up to 65 per cent of the population. At the same time measures bringing education closer to working life are being taken.

Finland is thus gradually building up a non-university sector of higher education consisting of institutions which internationally can be referred to as polytechnics or professional universities. By the year 2000, the two-sector system will be fully developed. The Finnish polytechnics are being formed by upgrading the specialised institutions which previously offered vocational higher education and merging them to form new, multi-disciplinary institutions.

This reform has been influenced by European experiences. It has adopted features from the German binary system with separate sectors for higher education and vocational higher education. It has been influenced by the Dutch HBO reforms with emphasis on merger operations between different institutions, as well as by the Norwegian idea of regional higher education institutions (Välimaa, 1996).

The Finnish Parliament passed an Act on a permanent polytechnic system in 1995; new experiments are still being set up. Polytechnics can only be given a permanent status after an initial experimental phase.

1.2. Strategy of the polytechnic reform: gradual and comprehensive upgrading of vocational post-secondary education.

Favourable feedback from the experiment and encouraging findings of international evaluations (see chapter 4.3.2. of the results concerning Vantaa Polytechnic) as well as changes in the Finnish economic structure and labour market prompted rapid action.

Instead of waiting for the year 1999 as originally planned, Parliament approved legislation making the polytechnic system permanent in 1995. The new Act also established the criteria according to which the Government can grant operating licences to permanent polytechnics.

The Government Plan for the development of education, announced in December 1995, establishes a strategy for the reform of vocational higher education. The reform is to be completed by the year 2000, and most of the old post-secondary and higher level of vocational education will be upgraded to the non-university sector of higher education. A total of some thirty polytechnics are to be formed, all of them multi-faculty institutions. As a result, the present post-secondary level will be abolished.

All education potentially qualifying for the polytechnic system will be brought within the sphere of the experiments by 1998. A phase of experimentation and development must thus always precede official establishment of each polytechnic institution.

Operating licences will only be granted on the basis of proven quality and achievement during the experimental phase. The Government will grant such licences annually until the end of the 1990s on the basis of criteria defined in the relevant legislation.

Thus the traditional university sector of Finnish higher education, continuous development and quality improvement as well as the gradual awarding of permanent operating licences lie at the core of establishing and maintaining the non-university sector.

The temporary and permanent polytechnics together form the non-university sector of higher education at the transitional stage, awarding higher education qualifications of equivalent scope, standard and value. Holders of these qualifications are equally eligible for the same posts and duties.

1.3. Ends and means of the reform

The main objectives of the polytechnic reform were defined when the experiments began in the early 1990s. The general objectives or quality criteria to be achieved by the experiments in progress can be summarised up as follows:

- to raise the standard of education;
- to react to changing needs of expertise and skills;
- to make vocational education more attractive;
- to improve the international compatibility of vocational education;
- to make the vocational education system more functional;
- to decentralise the administration of vocational education;
- to reinforce the regional impact of vocational education.

The principal means for implementing the polytechnic reform can be summarised up in the following activities:

- combining institutions to form genuine multi-disciplinary polytechnics;
- setting up a new degree system equivalent to the international bachelor level degrees comprising 140-160 study weeks or credits;
- raising the standard of teaching and learning;
- evolving methods of study combining theory, practice and on-the-job experience;
- education-workplace interaction;
- introduction and enhancement of international studies;
- better library and information services.

Research is not included among the officially coded ends and means of the reform. This is an implication of an unofficial and practical division of labour within the binary system. Research in the traditional universities is defined by the internal development of academic science, whereas research in polytechnics is focused on research-oriented development activities serving the needs of the professional domain (Lampinen, 1995).

2. NATIONAL SYSTEM OF ASSESSMENT OF POLYTECHNICS

2.1. Management by result and the financing of polytechnic institutions

The Ministry of Education can grant funds to higher education institutions in order to reward proven good results or to promote development projects and innovation. Since the year 1993, the Ministry has conducted a series of consultations with the polytechnics aiming at quality control and guidance.

The procedure has been even longer in use with regard to the traditional universities. The consultations consist of an analysis of the results obtained by the institutions and co-ordination of individual institutional and general policy aims. This is part of the Ministry's higher education steering policy called management by result. The consultations have become an important incentive in development work even if it is rather marginal as a state investment, forming only about 5 per cent of total state budget for the polytechnics. Another characteristic of the management by result policy is the fact that the Ministry does not itemise appropriations in financing the higher education institutions (Välimaa, 1996).

Basically the operation of polytechnics is financed from the budget funds and contributions by the students' home municipalities (an approximately 50-50 per cent division). Thus, unlike the universities, the polytechnics are not funded entirely by the State. Both the state budget funds and the funding from the students' home municipalities are formed by multiplying the number of students of each institution by a per capita sum which the Ministry defines for the annual study cost for each student.

2.2. The council for the evaluation for higher education

Together with the economic difficulties and the structural development of the higher education system in Finland, quality assessment has gained in political importance (Välimaa, 1994).

This change is also reflected in the foundation of the Council for the Evaluation of Higher Education established in January 1996. The Council is operating under the Ministry of Education Higher Education Section. The Council's task is to advise the Ministry and assist the higher education institutions in self-evaluation. The main aim of the Council is to carry out quality assessments in all Finnish higher educations including the polytechnics (Välilmaa, 1996).

2.3. Licensing through quality assessment

Polytechnics are licensed by the Government. A licence to operate a polytechnic institution can be granted to a local authority, joint municipal board or registered Finnish foundation or association. The educational function as well as development requirements of the institution are set out in the licence.

For an institution to qualify for the licence, it must fulfil an educational need and meet quality criteria for the provision of higher education. Under the Polytechnic Act, the following criteria are to be given particular consideration in:

- granting a licence;
- operating principles;
- up-to-dateness and the need for the planned degree programmes;
- viability of the combinations of degree programmes offered;
- areas of strength;
- sufficient size in relation to educational function;
- standard of education of the academic staff;
- library and information services;
- workplace liaisons;
- co-operation with universities and other educational institutions;
- international co-operation;
- regional educational and service function;
- evaluation arrangements.

The above is a direct translation of the law; there are no specifications offered in the legislation of what is meant by the criteria. As explained above, the polytechnics vying for the permanent or experimental licence can apply annually until a set number of polytechnic institutions and polytechnic level openings are reached.

The assessment process preceding the granting of the permanent licence has so far taken place twice, both times by grading forms filled out by the applying polytechnics. The form comprises a given set of questions following the formulations of the twelve quality criteria given in the Act. Two extra criteria have been added, those of work and the learning environment.

The assessment has been conducted by a group of assessors chosen by the Ministry of Education. Since 1996, the assessors will operate within the new Council for the Evaluation of Higher Education as explained above.

2.4. Licensing and lobbying

In the first evaluation round nine polytechnics were licensed by the Government in the summer of 1995 and will operate as permanent institutions from the autumn of 1996.

A fervent debate about the justness of the nominations ensued, naturally called forth by the some twenty disqualified polytechnics and their regional and other interest groups. The assessors and Ministry claimed to have placed emphasis only on quality assurance based on of the above criteria, excluding *e.g.* the possibility of promoting regional interests.

It was said that the commentaries given by the assessors were superficial and even contradictory, as the assessors had based their evaluation only on written reports. No other evaluation data was used, and the applicant institutions were not visited by the group. What has also been seen as problematic is the fact that the assessors focused their criticism on individual applicant institutions while the idea of enhancing the creation of a viable network of polytechnics was neglected (Lampinen and Savola, 1995).

As a possible indication of a tightened licensing policy in the winter of 1996, the first nine permanent polytechnics of 1996 were suggested by the assessors to be followed by only four in the autumn of 1997. This time lobbying bore effect: the Government's committee for education and culture was able to persuade the Government to add three more licences to the list. Regional and language politics were now openly mentioned but the ministers also claimed that the added three institutions filled the quality criteria.

So far there hasn't been a functioning system for discussing the critique in an open face-to-face situation between the assessors, the Ministry and the polytechnics. After the nomination of the Council for the Evaluation of Higher Education there now exist better chances of developing the licensing system.

2.5. Vantaa Polytechnic: striving for a licence

Vantaa Polytechnic applied for the permanent licence for the first time in 1995 and was disqualified. The main reason for this was that the Ministry of Education had a vision of a large regional polytechnic in the Province of Uusimaa.

Despite the fact the original core of five institutes in the City of Vantaa had been expanded in the winter of 1994-95 to include 12 new institutes in the surrounding province, there was an understanding that the strategy of the enlarged polytechnic was immature and that the organisational basis was still not large enough. It was the Ministry's expectation that it should include a number of institutes in the City of Espoo.

The new organisation was energetically developed during the autumn of 1995. As a result the Polytechnic was organised under a limited company status in January 1996. The new organisation bears the name of Espoo-Vantaa Polytechnic and will be the largest polytechnic in Finland.

In the next application round in January 1996 the core polytechnic in Vantaa applied for the permanent licence and the new parts for the experimental status. Espoo-Vantaa Polytechnic will thus be formed gradually in such a way that it can only be joined through experimentation and proven quality.

Vantaa Polytechnic was left without the permanent status a second time when the Government awarded the licences for 1997. The experimental status, however, was granted to the new parts of the Polytechnic.

The assessors complemented Vantaa Polytechnic for its international activities, its comprehensive assessment system and the intensive programme for raising the educational level of the academic staff. The main reason for not granting the licence was that the core polytechnic in Vantaa had not been clearly enough integrated into the larger Espoo-Vantaa Polytechnic.

After the writing of this case study and following a decision of the Ministry in the autumn of 1996, Vantaa Polytechnic merged with eight local colleges to form a limited company -- The Espoo-Vantaa Polytechnic Ltd. The changes and implications that have resulted from this merger are attached as a supplement to this case study.

2.6. Evaluation in the development of the polytechnic

As explained in chapter 1 the Finnish polytechnic system has been created by means of experimentation. The purpose has been to raise the former institute-level vocational education to the international level of vocational higher education. This kind of experiment also requires an estimation of how successfully these activities have been implemented (Turkulainen, 1995, 238).

Polytechnic education is being established through an interactive process of development and evaluation involving, in the domestic field, educational authorities, local authorities and other institute owners, institutional management, teachers, students, and the representatives of working life. Internationally, the process is influenced by educational experts and experience especially from within the EU.

The polytechnic experiment together with the licensing system has given impetus to a massive development process in the Finnish vocational education system. In the institutions vying for the polytechnic status the development activities are generally enhanced by wide-ranging training programmes for the staff.

Evaluation is a central tool in the development of polytechnics, as through evaluation it is possible to obtain necessary information for directing and improving the all its activities. Evaluation can be said to involve a built-in demand for change (Raivola, 1995, 23). In order to obtain objective information, external evaluation is of vital importance.

Finnish polytechnics have been audited by both international and national experts. As explained in chapter 2, permanent polytechnics are established through external evaluation carried out by the Council for the Evaluation of Higher Education. The polytechnics also use other forms of external assessment in order to develop their activities (for Vantaa Polytechnic see 4.3).

The cornerstone of development activities is, however, continuous internal feedback and self-assessment, the results of which can be utilised both quickly and efficiently. Systematic and continuous self-assessment provides institutions with means to improve their operating strategies as well as to define their position in the market. In the long-term, quality is the most efficient and productive marketing method in higher vocational education (Clarkson and Walls, 1993).

One of the reasons for launching major internal evaluation processes in polytechnics is the fact that a centralised educational planning system no longer exists in Finland. In a decentralised planning system the curricula are produced in each institution separately with an emphasis on local factors and synergy benefits. When an internal evaluation system for a polytechnic is developed, the principles emphasising local factors must be taken into account (Turkulainen, 1995, 238). The curricula of each polytechnic degree programme will, however, have to be approved by the Ministry of Education annually (see chapter 3, introduction).

The development discussions concerning the Finnish polytechnic system have centred round curriculum design as well as teaching and learning activities, all aiming at producing new expertise for professional life. The evaluation system can be seen as an essential tool in the development of these activities.

Evaluation can be used to direct activities as well as personal development. The aim of vocational education can be defined as the enhancement of such abilities in the students which enable them to become professional experts. With regard to professional development, there is a need to shift from traditional teacher-oriented evaluation towards students' self-assessment. Students are to be encouraged to evaluate their own learning activities, concerning *e.g.* problem solving, memory, thinking methods and personal qualifications (Männikkö, 1995, 169).

3. VANTAA POLYTECHNIC

Vantaa Polytechnic is at present one of the 28 institutions which give education at the higher professional level in Finland. The Polytechnic is comprised of five departments: Mercuria Business School, Vantaa Institute of Art and Design, Vantaa Institute of Social Studies, Vantaa Institute of Health Care and the Department of Catering Studies. As explained elsewhere, the Polytechnic is maintained by the limited company of Espoo-Vantaa Polytechnic. The total number of students is about 1 500.

Presently, the Polytechnic provides a dozen multi-disciplined degree programmes. These in turn are divided into several specialisation lines. The degree programmes are monitored and confirmed annually in negotiations with the Ministry of Education.

3.1. The degree programmes

The Polytechnic offers degree programmes in:

- business administration catering management;
- art and design;
- social studies and front office services;
- health care;
- security management (company security);
- aviation (from 1998).

3.2. Organisation and vision of the polytechnic

Linked through a small but dynamic administrative unit and a great variety of working teams, the Polytechnic has been operating through a network of five campuses in Vantaa. In the autumn of 1996, two of these campuses will move under one roof.

As explained in chapter 2.5, Vantaa Polytechnic is going through a major organisational change. Within the framework of Espoo-Vantaa Polytechnic, an already established limited company, the Polytechnic will consist of several campuses in the surrounding province of Uusimaa (See Supplement).

The present network of institutes will be reorganised. A special educational task and a role in the organisation will be defined for each institute joining the Polytechnic. Learning centres will emerge through synergy benefits and cost-effectiveness, as well as by abolishing overlapping activities. The network of learning centres constituting Espoo-Vantaa Polytechnic, will provide the students with a wide and flexible choice of studies.

In Espoo-Vantaa Polytechnic the education will be profiled to meet the regional and international needs of professional life. This is essential for a polytechnic situated partly within the Helsinki metropolitan area which is one of the most dynamically growing urban areas in the EU.

The province of Uusimaa is the administrative, economical and logistic centre of Finland with a population of about 1.5 million. Most job positions are within business, hotel and catering services, transport and telecommunication, finance and insurance and welfare services. The challenge for higher education is to meet the job demand by constantly providing an adequate number of graduates with the required qualifications.

4. EVALUATION ACTIVITIES IN VANTAA POLYTECHNIC

4.1. Evaluation in the strategic development of Vantaa Polytechnic

4.1.1. The strategy process

The strategy process of Vantaa Polytechnic is based on continuous evaluation and development. The strategy was created and is improved through an interactive process where the representatives of staff, students and the professional life as well as a number of multi-disciplinary working teams have their say. Students' contribution through continuous feedback is essential in the development of the study programmes.

From the very beginning, representatives of professional life have been involved in the Polytechnic's development activities. The expertise of professional life is brought into the Polytechnic's strategies in many ways: through the advisory committees of the degree programmes; through the inclusion of extensive practical training sections in the studies; by providing the labour market with specific adult education programmes; by carrying out research work and other services upon order as well as joint projects with companies.

4.1.2. The strategy of Vantaa Polytechnic

There is one objective underlying all the activities of Vantaa Polytechnic: to provide learning and teaching processes which enable the students' development towards a professional expertise as an integral part of their overall personal development. As a part of this process, the students are encouraged to learn to take risks, be innovative, to direct changes positively and to introduce new personal resources.

The operating principles of Vantaa Polytechnic include financial accountability and efficiency, as well as contribution to commerce and industry of the Helsinki region. The degree programmes are profiled to anticipate the demands of commerce and industry, and the core expertise of different fields represent the highest national and international levels.

The implementation of these objectives and principles requires:

- a co-operative management and working culture which is goal-oriented, open and empowering;
- expert teaching staff whose professional developments is promoted through continuous further and in-service training;
- extensive research and development activities, aiming at enhanced practices in professional life;
- an extensive local, national and international co-operation network, in order to produce better educational services to the needs of the professional life;
- a quality system in order to harmonise and systematise activities;
- service activities which are efficiently arranged and subject to payment.

As the strategy of Vantaa Polytechnic has its basis on continuous development, the element of evaluation must always be present. It is especially brought out where the strategy emphasises the significance of teachers' professional development. Research and development activities are used to assess and improve professional practices together with professional life. The significance of quality assurance is also emphasised in the strategy: it is important that activities are organised and unified by means of a quality system (see chapter 4.4).

4.2. The overall evaluation system of Vantaa

Vantaa Polytechnic's development and evaluation activities were reorganised in the autumn of 1995. The aim is to enhance the students' study processes by creating systematic practices for different fields of activities. All activities of the Polytechnic will be brought under a quality development project.

Through analysing the strengths and weaknesses of various activities, the objects of development and their prioritization have been established. The following chapters describe the different areas of the overall evaluation system and the implementation of the activities within them.

4.2.1. Development of teaching activities

A systematic teacher-student feedback system

All Vantaa Polytechnic degree programmes follow a common teacher-student feedback procedure involving evaluation activities from management, teachers and students. The forms and intensity of evaluation may vary in different programmes but a general schema as explained below is followed:

- Evaluation of learning through:
 - collecting course-specific student and teacher feedback;
 - reports and evaluation concerning students, teachers, work supervisors, as well as practical training;
 - evaluation of the student's dissertation process;
 - counselling and feedback discussions between students, teachers, study counsellors and/or student office personnel;
 - evaluation of student employability in working life.

- Evaluation of teaching through:
 - course evaluation utilised by teachers development discussions, relating to the development of curricula and instruction;
 - feedback discussions concerning the achievement of goals;
 - other evaluation activities concerning the further development of evaluation criteria.

Study counselling

Study counselling is provided throughout the course of the entire degree programmes. Tutor students acquaint the new students with the learning environment. Tutor teachers and student office personnel support the planning of individual study programmes as well as a tutoring scheme which are drafted already before the actual start of the studies (pre-entry). The tutoring system covers the whole study period including also the exit phase *i.e.* the time after the completion of the studies.

4.2.2. Learning and teaching activities

In education there has been a general change-over from teacher-oriented instruction to study methods which emphasise student autonomy and responsibility. This has made it possible to promote research-oriented and developmental learning methods. A co-operative approach to learning as well as an emphasis on project work reflect the needs of working life.

On national level, statistics concerning the scope and outcomes of vocational education are updated annually. The information collected is mostly quantitative and includes:

- numbers of applicants, admissions, drop-outs and graduated students;
- student employment rate after graduation;
- costs per student.

Vantaa Polytechnic utilises the above statistics in its own development activities. During the next few years, the first students having graduated from the Polytechnic in the academic year 1995-1996, the emphasis will be on monitoring the employability of graduated students.

4.2.3. Evaluation of the degree programmes

In order to set common goals for the development of degree programmes the departments of Vantaa Polytechnic have agreed on the following principles:

- the multi-disciplinary principle in curriculum design;
- meaningful integration of different subjects;
- research approach in teaching and learning;
- innovations in reacting to educational needs arising from working life.

A uniform structure has been created for degree programmes in order to facilitate students' choices from other degree programmes and institutes. In 1995 less than 10 per cent of the students chose studies from other institutes. The target is 15 per cent in 1996. To achieve this, the structures of curricula are being renewed by introducing "paths" which help students to make their choices.

Vantaa Polytechnic encourages the implementation of degree programmes which break the traditional boundaries of education and which are derived from the needs of professional life. As examples of this kind of activity, we have already started the degree programmes of Front Office Services and Security Management. The degree programme of Aviation is now being planned and will be started in 1998 (see chapter 3.1).

The extension of Vantaa Polytechnic to the province-wide Espoo-Vantaa Polytechnic will increase the opportunities for developing degree programmes.

4.2.4. Teachers' educational level

In order to develop the level of staff expertise, extensive further and in-service training is arranged for the academic personnel of Vantaa Polytechnic. Teachers are encouraged to do research and development projects which promote their own professional expertise and thus the expertise of Vantaa Polytechnic, as well as help develop the practices of professional life.

Further and in-service training programmes are arranged together with different universities for the teachers jointly as well as in the various disciplines of Vantaa Polytechnic. The aim is that all teachers have the required qualifications to teach in the polytechnics by 1998. At the moment approximately 80 per cent of the teachers have these qualifications.

4.2.5. Support services

Administrative services

Administrative services in Vantaa Polytechnic include management, planning, finance and various office services. One of the quality project aims is the systematisation and development of these services (see chapter 4.4).

The Polytechnic is developing a unified system of student office services. For this end, Vantaa Polytechnic participates in a two-year counselling development project supporting the evaluation of existing practices and the creation of a new system.

Library and information services

The objective of the library and information services of Vantaa Polytechnic is to support and enhance the learning, teaching and research activities of the polytechnic as well as to function as a centre of learning and culture.

This notwithstanding, the library and information services have been subject to constant criticism. Due to insufficient resources, it has suffered from a shortage of new acquisitions, equipment and staff. The recently established Espoo-Vantaa Polytechnic will start a project in order to develop the library and information services in August 1996.

4.2.6. International activities

Internationalisation is one of the key elements in the strategy of Vantaa Polytechnic. The objective is to provide the students with professional, cultural and communication skills which meet the needs of the internationalising professional life. In addition, the purpose is to promote understanding and co-operation between different cultures at personal and organisational level.

The emphasis of international activities in the next few years is on increasing the number of study units offered in English; as well as on improving the quality of present international contacts *e.g.* by balancing the in-and-out student flows, and by increasing staff mobility and joint development projects. Geographically, the activities are being extended from EU countries to Eastern Europe and the Far East.

The Polytechnic provides for the moment an extensive language and culture studies programme for its staff which will be further developed. The objective is that most teachers will be able to give instruction in English and more than 20 per cent of them will complete a course in French, German, Russian or in a Far East language. Moreover, 20 per cent of the office personnel should complete a course in English.

The expansion of Vantaa Polytechnic into a province-wide polytechnic means that co-operation will be defined and international activities profiled for the larger organisation in 1996-97.

In each department of the Polytechnic there is an international group in charge of the international activities. The groups evaluate and develop international operations together with the management and the international team of the whole Polytechnic.

The evaluation system of Vantaa Polytechnic supports the implementation and development of international activities. Information is gathered from the following items, among others:

- the quantity and quality of international co-operation agreements;
- the quantity and quality of education given in foreign languages;
- the number of student-teacher exchanges.

The Polytechnic will introduce the European Credit Transfer System (ECTS) as a tool to aid international comparisons of its programmes.

4.2.7. *Contacts with working life*

One of the main aims of the Polytechnic is to educate quality experts who are able to renew working life anticipating its needs.

The following fields are evaluated with regard to the development of contacts with working life:

- interaction between working life and the Polytechnic;
- development of international working life contacts;
- planning and implementation of precision training for the needs of working life;
- research work and dissertations;
- working life projects;
- student employability;
- co-ordination of working life contacts within the different degree programmes;
- new degree programmes anticipating the needs of the working life.

In 1994 Vantaa Polytechnic carried out a comprehensive survey in order to enhance the co-operation between companies and the Polytechnic. Based on the results, the Polytechnic has renewed its information services with regard to professional life.

The Polytechnic has an extensive practical training network, which despite the massive unemployment has provided students with sufficient work placements. The above survey of 1994 yielded additional working life contacts.

The teachers responsible for working life contacts maintain and update enter-prise register files which include, in addition to the practical training network and the basic information about the co-operation partners, reports concerning co-operation, present projects and opportunities for developing co-operation.

4.2.8. *Research and development activities*

A research approach is applied in all education in Vantaa Polytechnic. This refers to the critical and problem-orientated nature of teaching and learning. Research activities in the Polytechnic among teachers and students are encouraged in order to enhance expertise in its different fields of education.

Common instructions for the entire Polytechnic as well as field-specific applications have been drawn up for evaluating dissertations and other research work.

Attention is paid to the following:

- teaching contents are developed through research on a multi-disciplinary basis;
- the research approach opens up new developmental directions and problematic issues and promotes the development of teaching and learning methods;
- research is mostly linked to real situations in working life;
- research supports the general development of the Polytechnic.

4.3. Major evaluation projects at Vantaa Polytechnic

4.3.1. Self-evaluation process spring 1993

In the spring of 1993, Vantaa Polytechnic carried out a self-evaluation study that used interviews and a questionnaire directed at both the staff and students. Staff members and students selected on the proportion of the Polytechnic community, answered the questionnaire. At this stage, half of the first academic year was behind them.

The results consolidated that both the staff and students were pleased about the direction of the changes in the new polytechnic. As the reform was at an initial stage, the co-operation between various departments had not been launched in the best possible way.

According to the questionnaire, students seemed to worry about several unclarified issues, like the titles for the degrees, the recognition of education, for example, in the university sector. Students were also confused about the public discussion on polytechnics which quite often had critical tones.

Impact of the self-evaluation

Through the feedback received, the co-operation between the degree programmes has increased. At present it consists for example of working on new degree programmes and common study units, co-planning of teaching, mutual quality assurance, a common counselling and tutoring system.

A common structure for the degree programmes has been created together with a mutual period division. The question of national titles for the graduates from the polytechnics is still open. After years of debate the business administration graduates will be called tradenomi.

4.3.2. International review in 31 October-7 November 1993

In the autumn of 1993 an international review group was requested to review the development of the polytechnics at Vantaa and Seinäjoki. The group consisted of four European experts on polytechnic education.

The principal objective of the international review group was to assess the way in which the polytechnic experiment had evolved at the two new polytechnics.

In order to get a thorough insight into the development at these institutes, the review group spent three days at each polytechnic, during which intensive interview sessions took place with all the constituencies of the institutes: rectors of the affiliated institutes and the polytechnic, the staff and students, representatives of local industries, and the trade unions. Prior to the visit, the group was provided with detailed written information on the polytechnic reform in Finland and on these two polytechnics in particular, also including the self-evaluation (see 4.3.1.).

According to the review group, there was little doubt that in Vantaa Polytechnic the rationale behind the reform had been understood, and the staff and students were working hard and enthusiastically to realise its promises. In terms of the institutional setting, the only thing lacking was the technical education within the institution. That would have been a valuable addition to the present rich curriculum.

Within Vantaa Polytechnic the notion prevailed that little support for its endeavours was provided by the local community, especially where political support was concerned, but critique was also directed towards industry and commerce. The review group strongly suggested the Polytechnic to undertake steps to mitigate this situation.

The review group found it difficult that at the time, the Polytechnic was more or less, an "umbrella" organisation for the affiliated institutes, relying to a large extent on voluntary co-operation. This was not sufficient enough for the future development of the Polytechnic. There was a need of a more prominent role for the central polytechnic administration which implied a loss of autonomy by the institutes presently involved in Vantaa Polytechnic.

Impact of the international review

The criticism given by the evaluation group concerning the weakness of the centralised administration is being improved along with the organisational change from Vantaa Polytechnic into the province-wide Espoo-Vantaa Polytechnic.

A common administration unit has been established in order to produce managerial, developmental, financial and information services.

4.3.3. *The evaluation of the health care courses in the new polytechnics in Finland (Vantaa, Lahti, Oulu)*

An evaluation of the health care courses in the new polytechnics of Vantaa, Oulu and Lahti took place in January 1995. The international review group interviewed representatives of students, staff, and professionals in the field of work. They were also provided with written material based on previous self-evaluations.

In their main conclusions the assessors mentioned that the degree programmes in health care have improved significantly under the new polytechnic scheme in the content and delivery to the students. The students attending these courses were found to be flexible, knowledgeable and research minded.

The degree programmes offer flexible and dynamic integrative approaches to learning theory with practical overtones. They are also relevant to the health care needs of the 1990s. The development so far in polytechnics was in line with other European countries, and the overall standards appeared to be in many cases even better than in some other EU countries.

There is still an urgent need to develop internal quality assurance and audit processes not only in relation to the various programmes, but with regard to the quality of clinical placements.

Impact of the evaluation of the health care courses

The essential criticism towards the Finnish polytechnic level education was the lack of an internal quality assurance and auditing system. This situation has been improved since the autumn of 1995, when Vantaa Polytechnic launched its quality project (see 4.4).

4.3.4. An assessment of the present situation in the social sector of the polytechnic experiments in Vantaa, Lahti and Oulu

An international review group evaluated the present situation in the social sector polytechnic experiments in Vantaa, Lahti and Oulu in January 1995. The evaluation was based on discussions with teaching staff, students and representatives of the field of social work. The group used also written reports of the institutes providing them with an insight into general backgrounds and the overall structure of the degree programmes questions.

The main conclusions were as follows:

The degree programmes of social work have developed in a positive way. The teachers seemed highly motivated, stating that the development of the new programme had been a great stimulus to their work. The students were self-conscious and engaged in their studies.

There were, however, some issues to which particular attention should be paid:

- the lack of a clear social worker's profile;
- the connection between theory, skills training and practice;
- the lack of good library facilities;
- the future position of the polytechnics in terms of quality and quantity.

Impact of the assessment of the present situation in the social sector

To enhance the connection between working life and education, the degree programme of social studies of Vantaa Polytechnic has introduced project work as a co-operative learning method. It allows the student to apply skills into practice in an actual working environment and receive feedback immediately from the teacher as well as from the representative of the working life.

4.3.5. Evaluation of Vantaa Polytechnic for licensing

In relation to the application for the permanent status, Vantaa Polytechnic participated in an evaluation process carried out in Espoo-Vantaa Polytechnic institutions in November 1995-January 1996. The evaluation group consisted of three national experts on the Finnish polytechnic system.

The evaluation process was divided into two parts: the evaluation of written material on the various departments and a joint audit of the entire Polytechnic where the evaluators interviewed the representatives of the academic staff and students.

The main findings of the evaluation process were:

- the degree programmes relate well to the operating environment of the Polytechnic and to its future development challenges;
- internal co-operation has increased and joint policies are characteristic of the Polytechnic;
- there is a lot of co-operation between students and teachers;

- the Polytechnic has a well analysed vision and strategy;
- a continuous analysis of programmes is necessary in order to obtain synergy benefits within the Polytechnic;
- activities enhancing the students' autonomy and sense of responsibility should be continued and enlarged.

4.4. The quality project in Vantaa Polytechnic

A quality project was launched in Vantaa Polytechnic in the autumn of 1995. The project includes all activities and is based on the engagement and commitment of the entire work community. In October 1995, development projects have been formed on the basis of the analysis of activities. Priorities, fields of responsibility and timetables have been defined for projects in order to develop the Polytechnic.

The following principles have been defined for the Quality Project:

- Vantaa Polytechnic aims at implementing customer-orientation in its activities. The most important customer of the Polytechnic is the student.
- Student-orientation refers to the fact that students participate in the planning and implementation of teaching. Student feedback is an essential tool.
- A continuous dialogue with working life is crucial to the development of students' and teachers' professional expertise. This calls for research and development activities, through which the Polytechnic has a central role in the development of professional practices together with working life.

Quality of education is evaluated during the whole learning process and after the entrance into working life.

- With regard to quality it is essential to develop common practices including the special features of different fields.
- The staff considers their work important. This is promoted through co-operative managerial and working methods, as well as by means of further and in-service training programmes.
- The Polytechnic provides students with professional, linguistic, cultural and communicative abilities which meet the needs of internationalising working life.

The organisation of Vantaa Polytechnic's Quality Project:

- Quality operations at the polytechnic level are run by the steering group comprised of the management and the quality group. The quality group is a small multi-disciplinary team which is in charge of the practicalities such as planning, organising and developing the quality project.

- Quality operations in the departments of the Polytechnic are run by the institutes' quality groups and other working groups. Quality work is also a central task in the work of the Polytechnic's interdisciplinary teams and working groups.
- The student board is an interdepartmental organisation which has its representatives in the quality work group of the Polytechnic.

In order to promote the quality project, an in-service training programme for the entire staff has been started. The programme includes the principles of quality thinking and the development of work culture, team work and internal networking. In the autumn of 1996 the quality project will be extended to the province-wide Espoo-Vantaa Polytechnic, starting with a training programme for internal consultants for each institution. The aim of the programme is to support and enhance the harmonisation of the quality and evaluation activities in all parts of the new organisation.

5. DISCUSSION: QUALITY ASSESSMENT AS THE STRATEGY OF THE PROVINCE -- WIDE ESPOO-VANTAA POLYTECHNIC

Evaluation is a cornerstone of the strategy and practice of Vantaa Polytechnic. As explained earlier, an overall evaluation system including internal and external evaluation, as well as national and international evaluation, has been created for the Polytechnic. Internal evaluation consists of the assessment of organisational development, teaching and learning activities and support services. This assessment is supported by means of external evaluation.

In Vantaa Polytechnic every member of the working community has a role in quality assurance. The student feedback system as well as the emphasis on student autonomy and responsibility, guarantee that students engage themselves in their studies and in the development of polytechnic education. The teachers of the Polytechnic are involved in the development of the degree programmes as well as in their individual training programmes.

Close interaction with working life, and the related evaluative feedback form a central principle in the Polytechnic. This has an essential effect on the development of curricula and teaching methods. The Polytechnic also contributes to the development of working life and its practices.

In spite of several years' work, evaluation activities in the Polytechnic must be further developed. A great deal of information is collected but its utilisation is still insufficient. One of the reasons for launching the quality project was to overcome these shortcomings. The evaluation and documentation systems will have to be systematised and the practices further developed.

The province-wide Espoo-Vantaa Polytechnic was organised in the spring of 1996. When it has reached its full scale, by the year 2000, it will be the largest Polytechnic in Finland. The expansion is carried out gradually, on qualitative grounds. The evaluation system is an important instrument in the formation of the new Polytechnic.

Espoo-Vantaa Polytechnic will provide education to satisfy and anticipate local and national as well international demands in professional life. This requires an evaluation and reorganisation of the present network of institutes some of which will be merged and perhaps even closed down. Every institute in the network will have a special educational task as part of the entity. Thus the Polytechnic will obtain synergy benefits and cost-effectiveness, and overlapping activities can be avoided. Specialised learning centres will emerge and the quality of the degree programmes will be high.

The various regional units will make separate development plans which will be evaluated. Agreements of development will be established between the Polytechnic Board and the units. This annual process will guarantee that development of the units is carried out within the overall framework of the Polytechnic.

The development of regional units is supported by means of a joint training system including, among others, management training, teachers' pedagogical and post-graduate studies, and studies in foreign languages and cultures.

In the province-wide Polytechnic, due to the differences in institutional cultures, different solutions must be accepted at least at an early stage when quality systems are created. It is essential to agree on common values and quality principles which support the mission and strategy of Espoo-Vantaa Polytechnic. Every department will organise quality development and nominate those responsible for quality. In order to increase integration and to establish a common view, a programme is provided to train internal quality consultants.

National evaluation concerning the licensing and the related preparation work has required a lot of energy and has been partly a frustrating process. Because applications for the permanent licence have been disqualified and evaluation results have involved inconsistencies, there has been some confusion influencing staff's and students' motivation to their work. Nevertheless, the Polytechnic regards evaluation and quality activities important and essential in the development of its various functions.

Evaluation could be further promoted and brought to a wider basis for example by establishing an international body for evaluating higher education institutions with representatives of higher education and professional life from different countries.

At national level the evaluation system of polytechnics has not yet been fully established. There have been inconsistencies in the interpretations given by the Ministry of Education and its assessment team in granting the permanent licences. The Ministry is responsible for creating a national development strategy for the polytechnic system, while the assessment team has evaluated individual projects without considering the development of the whole polytechnic network in Finland. The situation will certainly improve together with the recent establishment of the Council for the Evaluation of Higher Education within the Ministry.

At Espoo-Vantaa Polytechnic much weight is set on an overall evaluation system in order to provide support for the development of its province-wide organisation. The Polytechnic will make a continuous effort to improve the linkage of evaluation and with its strategy processes.

Above all, our task is to fulfil the needs of two of our most important customer groups:

- Firstly, to provide support to students' learning processes in order to obtain the best possible outcomes; and
- Secondly, to be able to meet and anticipate the needs of the professional life.

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SUPPLEMENT TO THE VANTAA POLYTECHNIC CASE STUDY

Eeva-Liisa Antikainen and Paula Mattila

Building up the largest polytechnic in Finland

Espoo–Vantaa Polytechnic is a multi-disciplinary, multi-faculty polytechnic whose province-wide organisation will be completed, through various phases of expansion, by the year 2001. Much of the process has been explained in the Vantaa Case Study, pp. 8-9.

The original Vantaa Polytechnic, which by government decision had been in operation since 1991 as an experimental polytechnic, was officially merged to Espoo-Vantaa Polytechnic in November 1996. The colleges outside Vantaa, constituting Espoo-Vantaa Polytechnic, had been granted the experimental polytechnic status in the spring of 1996.

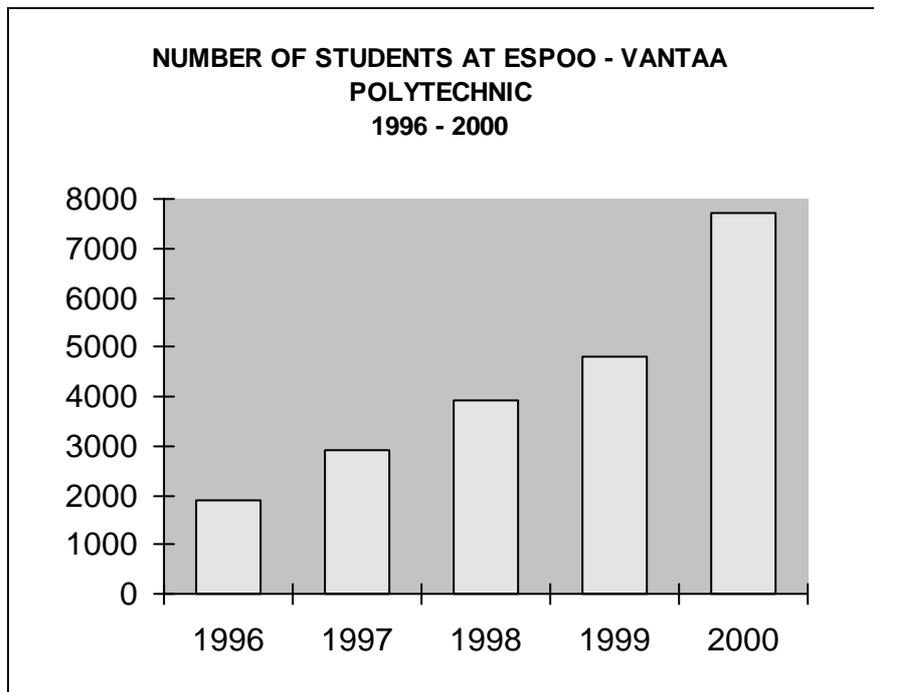
A limited company, The Espoo–Vantaa Polytechnic Ltd, was founded as the company to maintain the polytechnic. The limited company format was chosen as it was considered to give more economical and operational freedom to the institution than previously when the colleges had been owned and run by public authorities (mainly municipalities). It is also a prerequisite set by the Ministry of Education for the permanent polytechnics to have one sole owner.

The planning and organising of the province-wide polytechnic was launched in the autumn of 1995. A central administration unit was established in the spring of 1996 for the overall administration, strategic management and joint development activities of the polytechnic. The operational activities (*i.e.* education provision) were simultaneously organised under three different regional units.

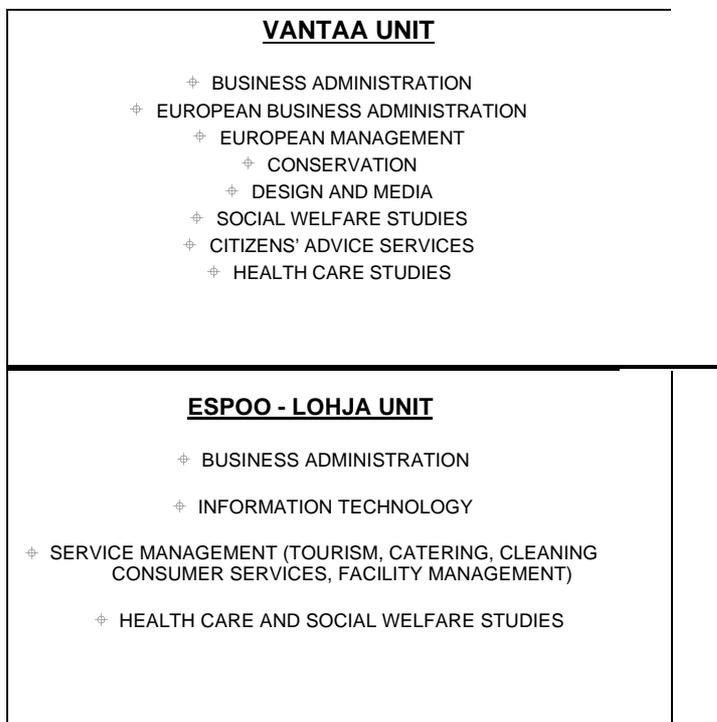
A key strategy for building up the province-wide organisation is to acquire the polytechnic status for different units in different years, mainly depending on how “mature” for the new status they are. The maturity is being assessed through different internal and external approaches (see Case Study, p. 28). Following this model, the polytechnic was in the autumn of 1996 enlarged by eight colleges from different parts the province of Uusimaa, most of these representing business administration. Based on the Ministry decision, the new inclusions will launch experimental polytechnic education in the autumn of 1997. The enlarged conglomeration will apply for the permanent status in 1998.

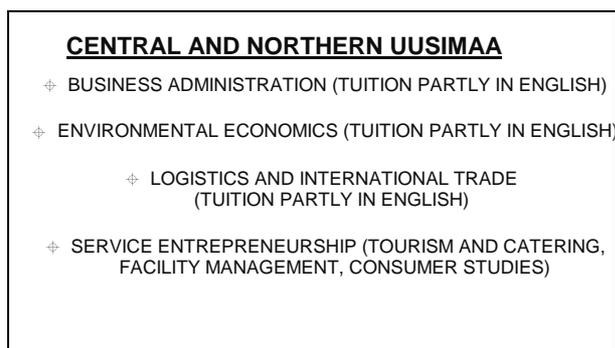
The aim and result of the relatively complicated merger process is the largest and most versatile polytechnic in Finland with a network linking a great number higher vocational education institutions in the heart of Finland’s business life.

Diagram 1



Due to mergers, the number of students at the Espoo-Vantaa Polytechnic will increase from 2000 to nearly 8000 during 1996-2000.





Diagrams 2 and 3

Through its multi-disciplinary degree programmes and province-wide network, Espoo–Vantaa is educating experts for the regional, national and global working environment. For this the polytechnic has an ideal location in the centre of Finland’s business and cultural life.

Quality policy at Espoo -- Vantaa polytechnic

Mission Statement

Situated in the centre of Finland’s business and cultural life, the Espoo-Vantaa Polytechnic is renowned for its international networks and the development of expertise through multi-agency and multi-disciplinary collaboration.

We aim to achieve a high quality education system through the development of multi-professional partnerships both at home and abroad. With our versatile interactions between students and teachers we aim to achieve a high quality learning environment which leads to the increased employability of our students.

The polytechnic has an efficient support system which is seen as entrepreneurial. Responding to the needs of individuals and groups at national and international level, and through the development of our curriculum we ensure quality is maintained and improved at all times.

Basic Values

- Customer focus
- Work life focus
- Co-operation
- Multi-disciplinarity
- Internationalisation and multi-culturalism
- Life-long learning

Strategies as Derived from the Basic Values

The Espoo-Vantaa Polytechnic's key customers are students, employers and, at organisational level, the various strategic and operational units and their staff to one another. The collaboration of students, teachers and working life creates educational services that anticipate the changes of working life and promote the employability of the students.

All action at the polytechnic is steered by a research oriented concept of knowledge enabling students and staff to adopt a research based and developmental work approach.

The Espoo-Vantaa Polytechnic students and staff expand their expertise through working in the multi-disciplinary polytechnic network. The international and multi-cultural Polytechnic provides its students with professional, linguistic, culture and communication skills which are necessary in the increasingly international working life. The constant improvement of the Polytechnic's activities supports the individual and professional development processes of students and staff.

The education and development activities at the Espoo-Vantaa Polytechnic are based on networks of expertise. For the pedagogical activities there is an overall development plan with regional and field-specific adaptations. The different aspects of the pedagogical development can be shown as a diagram:

